

REMARKS

The Examiner's Office Action of April 1st, 2004 has been thoroughly considered. In the Office Action, the Examiner has rejected independent Claim 1 and dependent Claims 2 through 5, 7 and 9 through 11 under 35 U.S.C. § 102(b), as being anticipated by Ward et al., U.S. Patent Number 6,104,930. Moreover, the Examiner has rejected independent Claim 12, as well as dependent Claims 13 through 16, under 35 U.S.C. § 102(b), as being anticipated by Smith et al., U.S. Patent Number 5,021,801. The Examiner also has rejected dependent Claim 6, under 35 U.S.C. § 103(a), as being unpatentable over Ward et al. in view of Feuerstein et al., U.S. Patent Number 6,141,930, dependent Claim 8, under 35 U.S.C. § 103(a), as being unpatentable over Ward et al. in view of Lopes et al., U.S. Patent Number 6,453,176, and dependent Claim 17, under 35 U.S.C. § 103(a), as being unpatentable over Smith et al. in view of Lopes et al.

By way of the present response, Applicants believe their application to be in condition for allowance.

I. Rejection of Claims 1-5, 7 and 9-11 Under 35 U.S.C. § 102(b)

The Examiner has rejected independent Claim 1, as well as dependent Claims 2 through 5, 7 and 9 through 11 under 35 U.S.C. § 102(b). The Examiner suggests that Applicants' claims are anticipated by the Ward et al. reference. In support of this conclusion, the Examiner points to various sections of the Ward et al. reference, including column 7, lines 20-40, column 8, line 51 through column 9, line 47 and Figures 7-10.

Applicants respectfully traverse the Examiner's contention of anticipation. Applicants submit that the art of record, including the Ward et al. reference, fails to teach or suggest each and every limitation of his claims. More particularly, Applicants argue that none of the references of record, including the Ward et al. reference, teach or suggest an "...input switchably coupled with the at least one radio by means of a *Butler* matrix and with at least one beam former...."

Applicants support the above conclusion by directing the Examiner to the Ward et al. reference. Applicants advance that the Ward et al. reference teaches a floating

transceiver assignment for a cellular radio system. More particularly, the Ward et al. reference discloses a frequency switch and combiner matrix 801. The Ward et al. reference neither discloses nor suggests the use of a *Butler* matrix. To this point, the Ward et al. reference employs matrix 801 for a different function than Applicants' *Butler* matrix. The frequency switch and combiner matrix 801 of the Ward et al. reference functions to maintain a pool of available carriers (e.g., reserving bandwidth and time slots) for use by the cellular radio system.

In contrast, Applicants' *Butler* matrix may, for example, optimize capacity of the system. Applicants argue that their *Butler* matrix performs, thusly, a wholly distinct function from that of the art of record, including the Ward et al. reference (e.g., maintaining a pool of available carriers). Consequently, the art of record, including the Ward et al. reference, neither teaches nor suggests each limitation in Applicants' claims. Applicants support this conclusion by advancing that the switch matrix in the art of record, including the Ward et al. reference, performs a wholly distinct function from Applicants' *Butler* matrix.

In view of the above remarks, Applicants submit that their claimed invention is not anticipated by the art of record, including the Ward et al. reference. Applicants advance that the art of record, including the Ward et al. reference, neither teaches nor suggests an "...input switchably coupled with the at least one radio by means of a *Butler* matrix and with at least one beam former...." Accordingly, Applicants believe independent Claim 1 to be in allowable form. Applicants also submit that as Claims 2 through 5, 7, and 9 through 11 depend from independent Claim 1, these dependent claims, by logical extension, are also novel and non-obvious as well. Consequently, Applicants respectfully request immediate reconsideration and allowance of their application.

II. Rejection of Claims 12-16 Under 35 U.S.C. § 102(b)

The Examiner has rejected independent Claims 12, as well as dependent Claims 13 through 16 under 35 U.S.C. § 102(b). The Examiner suggests that Applicant's claims are anticipated by the Smith et al. reference. In support of this conclusion, the Examiner points to various sections of the Smith et al. reference, including the abstract, column 3, line 34-42 and Figures 2-5.

Applicants respectfully traverse the Examiner's contention of anticipation. Applicants submit that the art of record, including the Smith et al. reference, fails to teach or suggest each and every limitation of his claims. More particularly, Applicants argue that none of the references of record, including the Smith et al. reference, teach or suggest an "...switching equipment between portions of the communication system *using a Butler matrix* to meet the capacity demands of the various portions."

Applicants support the above conclusion by directing the Examiner to the Smith et al. reference. Applicants advance that the Smith et al. reference teaches an antenna switching system using a matrix. The Smith et al. reference, however, neither discloses nor suggests the use of "...a *Butler* matrix to meet the capacity demands of the various portions." To this point, the Smith et al. reference employs matrix for a different function than Applicants' *Butler* matrix. The matrix of the Smith et al. reference functions to route a sector antenna(s) to a transmitter(s). As a consequence, the Smith et al. reference allows for the dynamic frequency allocation in a cell.

In contrast, Applicants' *Butler* matrix may, for example, optimize capacity of the system. Applicants argue that their *Butler* matrix performs, thusly, a wholly distinct function from that of the art of record, including the Smith et al. reference (e.g., dynamic frequency allocation in a cell). Consequently, the art of record, including the Smith et al. reference, neither teaches nor suggests each limitation in Applicants' claims. Applicants support this conclusion by advancing that the switch matrix in the art of record, including the Smith et al. reference, performs a wholly distinct function from Applicants' *Butler* matrix.

In view of the above remarks, Applicants submit that their claimed invention is not anticipated by the art of record, including the Smith et al. reference. Applicants advance that the art of record, including the Smith et al. reference, neither teaches nor or suggests "...a *Butler* matrix to meet the capacity demands of the various portions." Accordingly, Applicants believe independent Claim 12 to be in allowable form. Applicants also submit that as Claims 13 through 16 depend from independent Claim 12, these dependent claims, by logical extension, are also novel and non-obvious as well. Consequently, Applicants respectfully request immediate reconsideration and allowance of their application.

III. Rejection of Claims 6, 8 and 17 Under 35 U.S.C. § 103(a)

The Examiner has rejected dependent Claims 6, 8 and 17 under 35 U.S.C. § 103(a). More particularly, the Examiner suggests that Applicants' dependent Claim 6 is made unpatentable over Ward et al. in view of Feuerstein et al., dependent Claim 8 is made unpatentable over Ward et al. in view of Lopes et al., and dependent Claim 17 is made unpatentable over Smith et al. in view of Lopes et al. The Examiner suggests that, with respect to each of these dependent claims, the proposed combination would have been obvious to one of ordinary skill in the art at the time the invention was made.

Applicants respectfully traverse the Examiner's rejection of dependent Claim 6 as being made unpatentable by the combined teachings of Ward et al. in view of Feuerstein et al. The combination, as posed by the Examiner, still fails to teach or suggest each and every limitation of the claimed invention. More particularly, the combination fails to teach or suggest an "...input switchably coupled with the at least one radio by means of a *Butler* matrix and with at least one beam former...."

Applicants advance that the Feuerstein et al. reference pertains to a system and method for continuously providing network parameters to various network elements in a cellular PCS or other wireless communication network. Thusly, neither the Ward et al. reference nor Feuerstein et al. reference disclose or suggest the use of a *Butler* matrix, as

recited in independent Claim 1. As a consequence, the combination proposed by the Examiner still fails to teach or suggest Applicants' dependent Claim 6. Moreover, as Applicants advance Claim 1 to be patentable in view of the hereinabove remarks, by logical extension, Claim 6, which depends from Claim 1, is also novel and non-obvious as well.

Applicants respectfully traverse the Examiner's rejection of dependent Claim 8 as being made unpatentable by the combined teachings of Ward et al. in view of Lopes et al. The combination, as posed by the Examiner, still fails to teach or suggest each and every limitation of the claimed invention. More particularly, the combination fails to teach or suggest an "...input switchably coupled with the at least one radio by means of a **Butler** matrix and with at least one beam former...."

Applicants advance that the Lopes et al. reference pertains to an antenna array system. The antenna array of the Lopes et al. reference employs a first beamforming means as well as a switching means for associating a plurality of transceiver elements with a plurality of beam ports. Thusly, neither the Ward et al. reference nor Lopes et al. reference disclose or suggest the use of a **Butler** matrix, as recited in independent Claim 1. As a consequence, the combination proposed by the Examiner still fails to teach or suggest Applicants' dependent Claim 8. Moreover, as Applicants advance Claim 1 to be patentable in view of the hereinabove remarks, by logical extension, Claim 8, which depends from Claim 1, is also novel and non-obvious as well.

Applicants respectfully traverse the Examiner's rejection of dependent Claim 17 as being made unpatentable by the combined teachings of Smith et al. in view of Lopes et al. The combination, as posed by the Examiner, still fails to teach or suggest each and every limitation of the claimed invention. More particularly, the combination fails to teach or suggest the use of "...a **Butler** matrix to meet the capacity demands of the various portions."

Applicants advance that neither the Smith et al. reference nor Lopes et al. reference disclose or suggest the use of a **Butler** matrix, as recited in independent Claim 12. As a

consequence, the combination proposed by the Examiner still fails to teach or suggest Applicants' dependent Claim 17. Moreover, as Applicants advance Claim 12 to be patentable in view of the hereinabove remarks, by logical extension, Claim 17, which depends from Claim 12, is also novel and non-obvious as well.

IV. Summary and Conclusion

Applicants believe that a full and complete response has been made to the Examiner's Office Action. Thus, in view of the hereinabove remarks, Applicants respectfully request immediate reconsideration and allowance of their patent application and its claims. To that end, if the Examiner feels that a conference might expedite the prosecution of this case, the Examiner is cordially invited to call the undersigned.

Respectfully submitted,



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